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L4: Entry 2 of 5

File: USPT

Jun 23, 1998

DOCUMENT-IDENTIFIER: US 5770447 A

TITLE: Cell Line for the rapid expression of functional calcium channels

ABPL:

The instant invention provides a stable cell line, 34893 2L, for the rapid functional expression of high voltage activated calcium channels.

BSPR:

The voltage activated calcium channels of vertebrates have been shown to be involved in a variety of different physiological processes including muscle contraction, insulin release from the pancreas, and neurotransmitter release in the nervous system (Catterall W. A., Trends in Neurosciences, 1993;16:500-506; Catterall W., Epstein P. N., Diabetologia, 35(Suppl 2:S23-33) 1992; Birnbaumer L., et al., Neuron., 1994:13; Rorsman P., et al., Diabete. Metab., 1994;20:138-145). The original description of the calcium channels classed them as T type, L type, or N type. The T type channel is activated at relatively low voltages, while the L and N types are activated by depolarization to higher voltages. The L type is a channel that is involved in muscle contraction, and is characterized by slow inactivation and sensitivity to dihydropyridines. The N type is also a high voltage activated channel, but rather than being sensitive to dihydropyridines, the N channel is blocked by the peptide toxins GVIA and MVIIA from cone snails, and is involved in neurotransmitter release (Birnbaumer L., et al., Neuron., 1994:13; Olivera B. M., Miljanich G. P., Ramachandran J., Adams M. E., Annu Rev. Biochem., 1994;63:823-867).

BSPR:

The channels purified from neural tissue and skeletal muscle contain a number of different subunits. The L channel from skeletal muscle consists of a complex containing five subunits, alpha 1, alpha 2, beta, delta, and gamma. L channels isolated from neuronal tissue consist of three subunits corresponding to the alpha 1, alpha 2, and beta subunits. Delta and gamma do not seem to be expressed in the nervous system (Catterall W. A., Trends in Neurosciences, 1993;16:500-506).

BSPR:

The N type channel is expressed primarily in neuronal tissue, though there have been some reports of the channel being expressed in beta cells of the pancreas. The N channel is also

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Term	Documents
ALPHA1 DWPI,TDBD,EPAB,JPAB,USPT.	1004
ALPHA1S	0
ALPHA DWPI,TDBD,EPAB,JPAB,USPT.	450654
ALPHAS DWPI,TDBD,EPAB,JPAB,USPT.	311
"1" DWPI,TDBD,EPAB,JPAB,USPT.	15934045
1S DWPI,TDBD,EPAB,JPAB,USPT.	10580
ALPHA-1 DWPI,TDBD,EPAB,JPAB,USPT.	1546
ALPHA-1S	0
(2 AND ((ALPHA1 OR ALPHA-1) OR (ALPHA ADJ "1"))). USPT,JPAB,EPAB,DWPI,TDBD.	5

Display

20

Documents, starting with Document:

5

Display Format:

CIT

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DERWENT-ACC-NO: 2000-271475
DERWENT-WEEK: 200034
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TITLE: Novel nucleic acids encoding pancreatic T-type calcium channels used for regulation of T-type calcium channels and treatment of type II diabetes

INVENTOR: LI, M

PRIORITY-DATA: 1999US-0117399 (January 27, 1999),
1998US-0098004 (August 26, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 9960217 A	April 3, 2000	N/A	000	C12Q001/68
WO 200015845 A1	March 23, 2000	E	124	C12Q001/68

INT-CL (IPC): C07H 21/04; C07K 14/435; C07K 14/705; C12N 15/12;
C12Q 1/68

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Clip Img	Image
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☐ 5. Document ID: EP 1042468 A2, WO 9928342 A2, AU 9918026 A

L4: Entry 5 of 5

File: DWPI

Oct 11, 2000

DERWENT-ACC-NO: 1999-371096
DERWENT-WEEK: 200052
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TITLE: Subunits of calcium channels

INVENTOR: HARPOLD, M; STAUDERMAN, K ; WILLIAMS, M ; HANS, M ;
URRUTIA, A ; WASHBURN, M S

PRIORITY-DATA: 1998US-0188932 (November 10, 1998),
1997US-0984709 (December 3, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1042468 A2	October 11, 2000	E	000	C12N015/12
WO 9928342 A2	June 10, 1999	E	169	C07K014/00
AU 9918026 A	June 16, 1999	N/A	000	C07K014/00

INT-CL (IPC): C07K 14/00; C07K 14/705; C07K 16/28; C12N 5/10;
C12N 15/12; G01N 33/68

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc	Image
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US-PAT-NO: 5770447
DOCUMENT-IDENTIFIER: US 5770447 A

TITLE: Cell Line for the rapid expression of functional calcium channels

DATE-ISSUED: June 23, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Offord; James David	Ann Arbor	MI	N/A	N/A

US-CL-CURRENT: 435/369; 435/7.1, 435/7.21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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☐ 3. Document ID: US 5712158 A

L4: Entry 3 of 5 File: USPT Jan 27, 1998

US-PAT-NO: 5712158
DOCUMENT-IDENTIFIER: US 5712158 A

TITLE: Cell line for the rapid expression of functional calcium channels

DATE-ISSUED: January 27, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Offord; James David	Ann Arbor	MI	N/A	N/A

US-CL-CURRENT: 435/369; 435/69.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWC	Draw Desc	Image
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☐ 4. Document ID: AU 9960217 A, WO 200015845 A1

L4: Entry 4 of 5 File: DWPI Apr 3, 2000